



IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

**Patent Application**

Applicant(s): Lidia Luminita Mangu,  
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Docket No.: YOR920010337US1  
Serial No.: 09/847,139  
Filing Date: May 2, 2001  
Group: 2641  
Examiner: Unassigned

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

Signature: Lidia Mangu Date: July 18, 2001

Title: Error Corrective Mechanisms for Consensus  
Decoding of Speech

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**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner of Patents  
Washington, D.C. 20231

SIR:

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, Applicant's attorney wishes to bring to the attention of the Patent and Trademark Office the following document listed on the accompanying PTO Form 1449. Copies of the listed items are enclosed.

1. Bahl et al., "A Maximum Likelihood Approach to Continuous Speech Recognition," IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. PAMI-5, No. 2, 179-190 (March 1983)
2. Eric Brill, "Transformation-Based Error-Driven Learning and Natural Language Processing: A Case Study in Part of Speech Tagging," Computational Linguistics, Vol. 21, No. 4, 1-37 (1995)
3. Ted Dunning, "Accurate Methods for the Statistics of Surprise and Coincidence," Computational Linguistics, Vol. 19, No.1, 61-74 (1993)
4. Mangu et al., "Automatic Rule Acquisition for Spelling Correction" Computer Science Dept., Johns Hopkins University
5. Mangu et al., "Finding Consensus Among Words: Lattice-Based Word Error Minimization," Department of Computer Science, Johns Hopkins University, Baltimore, MD, Speech Technology and Research Laboratory, SRI International, Menlo Park, CA
6. Mangu et al., "Finding Consensus in Speech Recognition: Word Error Minimization and Other Applications of Confusion Networks," Computer Speech and Language 14, 373-400 (2000)

7. Ratnaparkhi et al., "A Maximum Entropy Model for Prepositional Phrase Attachment," IBM Research Division, T. J. Watson Research Center, Yorktown Heights, NY

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made, or as an admission that the information cited is considered to be material to patentability or that no other material information exists.

Respectfully submitted,



Date: July 18, 2001

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